

ZERO-WASTE FASHION DESIGN:

a study at the intersection of
cloth, fashion design and pattern cutting

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Certificate of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Timo Rissanen

A handwritten signature in black ink, appearing to be 'Timo Rissanen', with a long horizontal flourish extending to the right.

13th of May, 2013

Acknowledgments

I dedicate this project to my mum and dad. Kiitos.

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PREAMBLE OCT 5, 2012

AT THE START OF THIS PROJECT
IN 2004 OR 2005 I WROTE
A NOTE TO MAKE A T-SHIRT
THAT HAD ALL OF ITS WASTE
APPLIQUÉD ON IT.

I DID THIS IN AUGUST 2012.

COMPLETING TO-DO-LISTS
FEELS GREAT.

LET'S DO THIS.

TIMD



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Abstract

This thesis examines zero-waste fashion design: design activity that results in zero-waste garments. Conventional design approaches waste approximately 15 per cent of the fabric used in the design and make of a cut and sew garment. The responsibility for this wastage belongs with manufacture, which is constrained by what has already been designed and pattern cut. The economic systems that underpin fashion design and manufacture are such that there is little economic incentive to be concerned with this wastage. An examination of the material and social investments embodied in fabrics alongside their environmental impacts, reveals that these investments are wasted in the wasted fabric.

The context of this study is contemporary fashion design within the ready-to-wear industry: fashion design that leads to the manufacturing of multiples of one design. The contextual review of this study examines different methods of fashion creation. Design ideation tools and the relationship between fashion design and pattern cutting in current industry provide the frame for design practice in this study, together with an analysis of historical and contemporary zero-waste and less-waste garments. Findings from the contextual review frame a series of briefs for design experiments. This study asks: What are the opportunities for creating zero-waste garments within contemporary menswear fashion design practice using cut and sew methods?

Fashion design practice is the primary research tool in this study. Design processes and their outcomes are documented in a journal, and the journals are transcribed and analysed. Successful strategies for zero-waste fashion design, emerging from the data, are presented. Pattern cutting emerges as integral to zero-waste fashion design. Zero-waste fashion design is examined in relation to fashion manufacture, as particular manufacturing issues such as fabric as material, and the grading of garment patterns to achieve size ranges of garments, create new kinds of opportunities for zero-waste fashion design. This study also asks: To what extent is a zero-waste approach feasible and desirable within contemporary fashion industry? This study demonstrates that zero-waste fashion design generates new opportunities for fashion design to engage with fashion manufacture that may not currently exist.

This study calls for fashion design to consider pattern cutting an integral part of the fashion design process. Such an approach to fashion design creates new opportunities for the fashion industry and fashion design education. Zero-waste fashion design is part of a larger picture of beauty for everyone, that fashion is capable of being the source of.

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